

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD
SECRETARY

JOHN AUERBACH
COMMISSIONER

Adam Foss, ADA

Suffolk County District Attorney's Office
By e-mail

April 25, 2011

Re: Comm. v. [REDACTED]

ADA Foss,

Please find enclosed a discovery packet for the case noted above. The material is collated in the following manner:

- 1) the chemists' c.v.'s
- 2) the evidence office receipt to the Boston Police
- 2) inventory control cards for the submissions
- 3) the bench notes on the "Drug Powder Analysis Forms"
- 4) the gas chromatography/mass spectrometry (gc/ms) data

I was the custodial chemist responsible for weighing the sample and performing the preliminary tests. Ms. Khan performed the gas chromatography/mass spectrometry (gc/ms). If you need further clarification of this material, please call me directly at (617) 983-6627.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Lawler", written over a horizontal line.

Michael Lawler
Senior Chemist

Cc: Charles Salemi, Annie Khan

Curriculum Vitae

Michael Lawler

Education:

University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975

Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

Experience:

1990-present currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits.

2005-present lecturer in chemistry, Curry College, Milton, Ma.

1988-1990 New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

1983-1988 Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

1982-1983 NENS hypothyroid assay technologist with Tuft's University

1979-1981 Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

Additional education and special training

Drug Analysis, completed six week training course by senior staff within the Department of Public Health Drug Analysis Laboratory

National Laboratory Network Training Program course as Expert Witness

Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court

CDC course in cell culture

CDC course in antibiotic resistance

CDC course in public health response to bioterrorism

U.S. Army course in biologic warfare and terrorism

Journal Publications

Screening, 1992, 1:34-37; Lawler,M., Frederick,S., Rodriguez-Anza, S., Wolf,B., Levy,H., *Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases*

Genetic Screening, 1990, 11-18, Mitchell,M., Lawler,M., Walraven,C., Hermos,R., *To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?*

The Journal of Pediatrics, 116: 78-83, Secor-McVoy,J., Lawler,M., Schmidt, M., Ebers,D., Hart,P., Pettit,D., Blitzer,M., Wolf,B., *Partial Biotinidase Deficiency: Clinical and Biochemical Features*

Professional Affiliations

Northeastern Association of Forensic Scientists (NEAFS) since 2005

Awards

Theobald Smith Education Grant for graduate studies

Curriculum Vitae

Annie Khan (Dookhan)

Education:

University of Massachusetts, Boston, Ma, Master of Science in Chemistry.

University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

Experience:

2003 – present

Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.

*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.

*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.

*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.

*Maintenance and repairs of all analytical instruments.

*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.

*Responsible for the Quality Control/Quality Assurance program for the drug lab.

*Notary Public.

*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003

QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.

*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.

*Writing, revising and reviewing Standard Operating Procedures (SOPs).

*Trained and supervised new chemists and interns for the department.

*Routine QC testing of products for the FDA.

*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.

*Calibration, preventive maintenance, QC and QA of analytical instrumentation.

*Complete testing of chemicals for Vendor Validation Project for the FDA.

*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

Additional Training:

Dept. of Justice – Forensics Professionals. (numerous trainings)

GLP/GMP course with Massachusetts Biologic Laboratory.

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS courses with Agilent Technologies and Restek.

HPLC course with Waters Cooperation.

FTIR course with Spectros.

TOC training with MBL and Sievers.

Association:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

DRUG RECEIPT

CC #

BOOK # 28PAGE # 195

DESTRUCTION # _____

District/Unit

DCU/E-13

Name & Rank of Arresting Officer

P.O. HARPER

ID#

11129

DEFENDANT'S NAME

ADDRESS

CITY

STATE

DESCRIPTION OF ITEMS SUBMITTED

GROSS
QUANTITYGROSS
WEIGHT

LAB USE ONLY

ANALYSIS
NUMBERHEROIN2 P/B2.60gHEROIN1 P/B2.24g

To be completed by ECU personnel only

Name and Rank of Submitting Officer

Smalls

ID#

9800

Received by

elo

Date

7-12-10

ECU Control # _____

No. [REDACTED] Date Analyzed: 09-03-10
City: Boston D.C.U. Police Dept.
Officer: P.O. CRAIG SMALLS
Def: [REDACTED]
Amount: Subst: SUB
No. Cont: 2 Cont: pb
Date Rec'd: 07/12/2010
Gross Wt.: 2.60 ✓
No. Analyzed: 1
Net Weight: 0.26g
Tests: 5 *MA*
Prelim: *heroin* Findings: • 2 ASD
Heroin

No. [REDACTED] Date Analyzed: 09-03-10
City: Boston D.C.U. Police Dept.
Officer: P.O. CRAIG SMALLS
Def: [REDACTED]
Amount: Subst: SUB
No. Cont: 1 Cont: pb
Date Rec'd: 07/12/2010
Gross Wt.: 2.24 ✓
No. Analyzed:
Net Weight: 0.22g
Tests: 5 *MA*
Prelim: *Heroin* Findings: • 2 ASD
Heroin

6090210.5
6090210.5

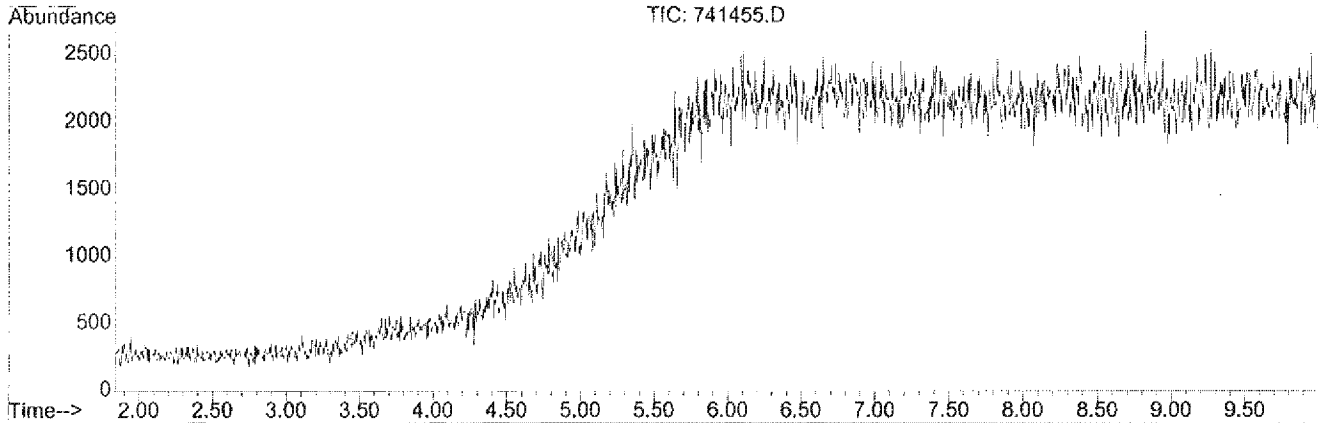
6090210.5
6090210.5

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741455.D
Operator : ASD
Date Acquired : 2 Sep 2010 21:09
Sample Name : BLANK
Submitted by :
Vial Number : 2
AcquisitionMeth: DRUGS
Integrator : RTE

✓ ASD
4-21-11



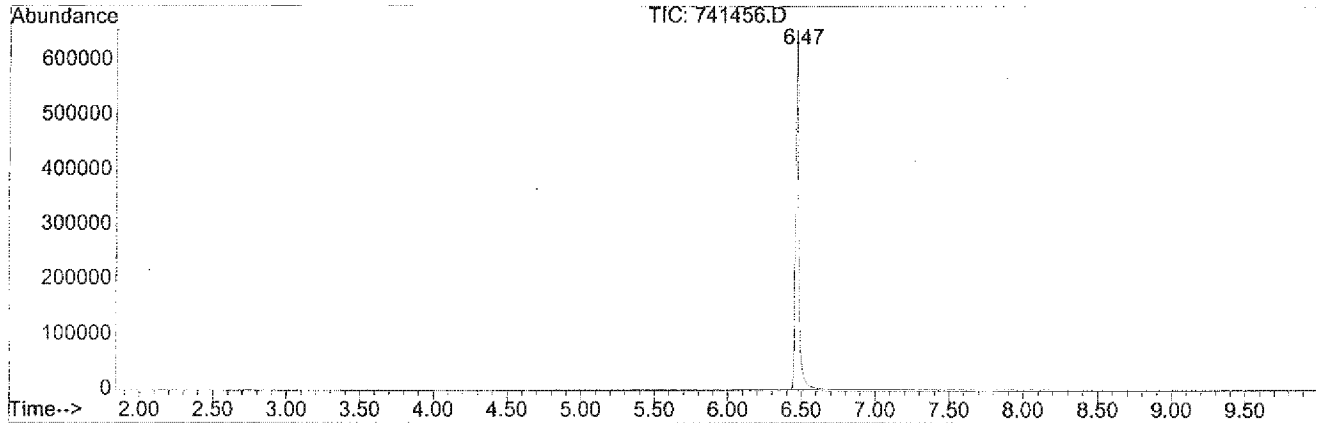
Ret. Time	Area	Area %	Ratio %
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NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741456.D
 Operator : ASD
 Date Acquired : 2 Sep 2010 21:21
 Sample Name : HEROIN STD
 Submitted by :
 Vial Number : 56
 AcquisitionMeth: DRUGS
 Integrator : RTE



Ret. Time	Area	Area %	Ratio %
6.465	1011259	100.00	100.00

Area Percent / Library Search Report

Information from Data File:

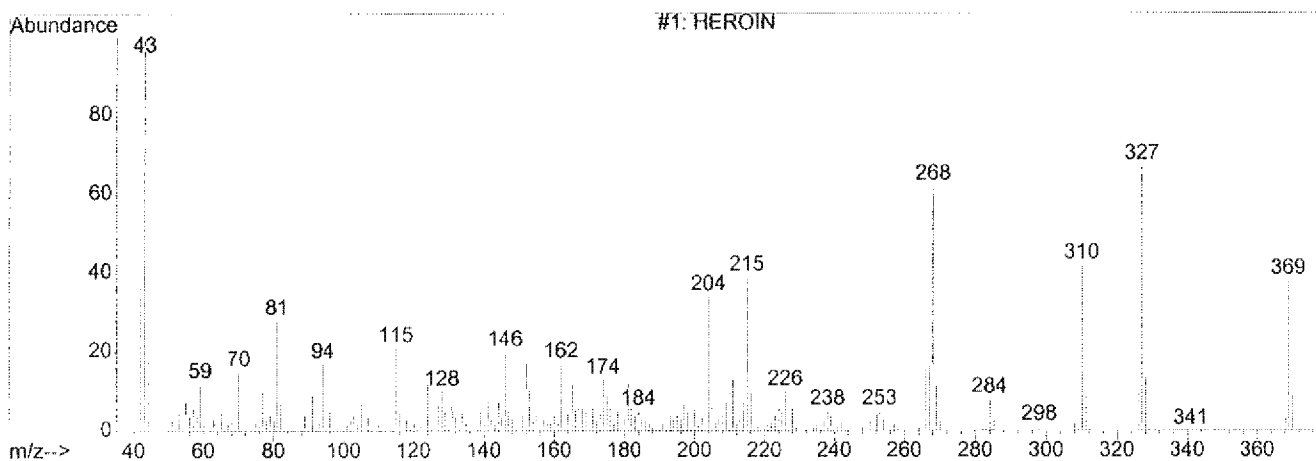
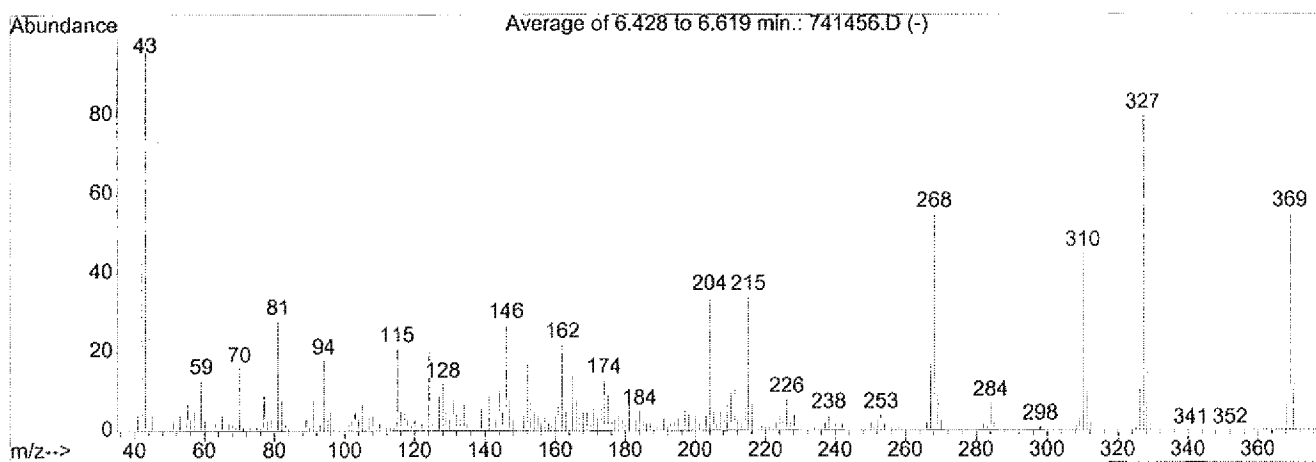
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741456.D
Operator        : ASD
Date Acquired   :  2 Sep 2010   21:21
Sample Name     : HEROIN STD
Submitted by    :
Vial Number     : 56
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries:  C:\DATABASE\SLI.L             Minimum Quality: 90
                   C:\DATABASE\PMW_TOX2.L        Minimum Quality: 90
                   C:\DATABASE\NIST98.L
  
```

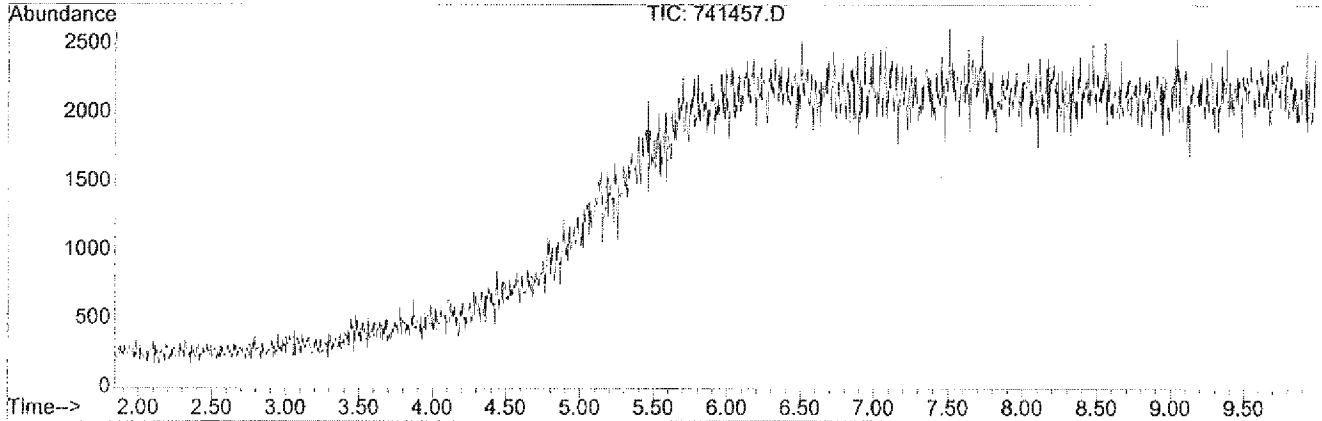
PK#	RT	Library/ID	CAS#	Qual
1	6.47	C:\DATABASE\SLI.L HEROIN	000561-27-3	99



Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741457.D
Operator : ASD
Date Acquired : 2 Sep 2010 21:34
Sample Name : BLANK
Submitted by : SLD
Vial Number : 2
AcquisitionMeth: DRUGS
Integrator : RTE



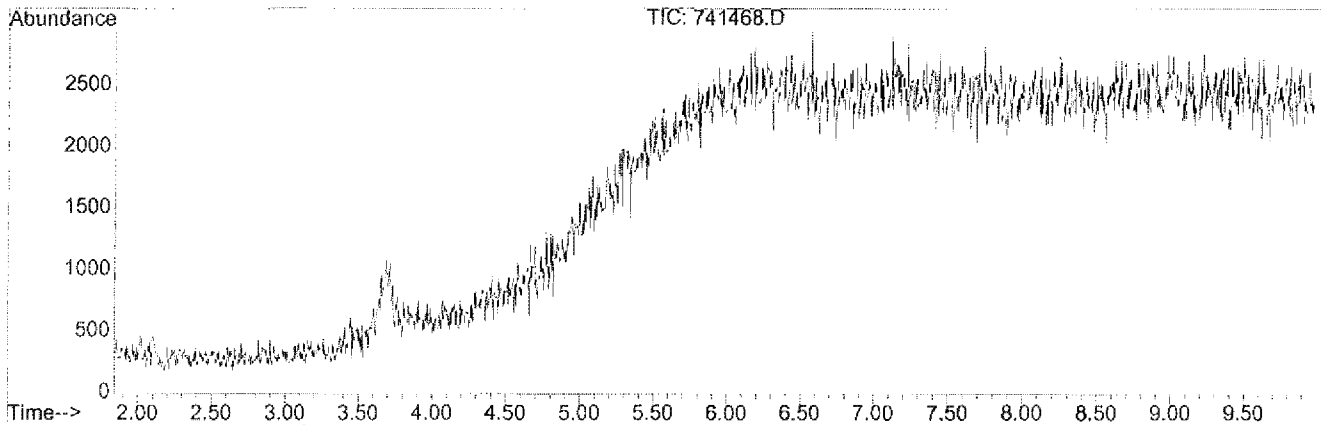
Ret. Time	Area	Area %	Ratio %
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NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741468.D
Operator : ASD
Date Acquired : 2 Sep 2010 23:53
Sample Name : BLANK
Submitted by : MGL
Vial Number : 2
AcquisitionMeth: DRUGS
Integrator : RTE



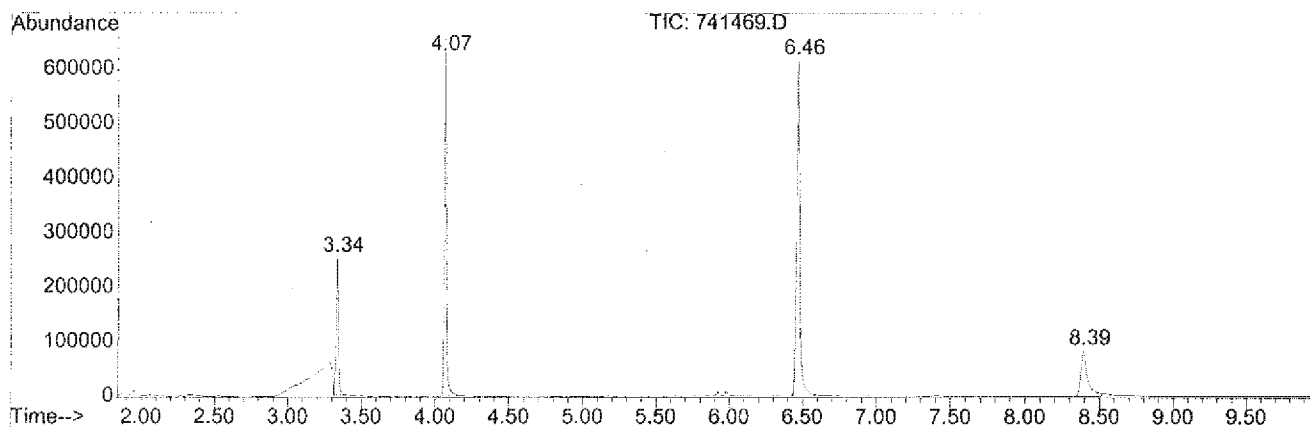
Ret. Time	Area	Area %	Ratio %
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NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741469.D
 Operator : ASD
 Date Acquired : 3 Sep 2010 00:06
 Sample Name : XXXXXXXXXX
 Submitted by : MGL
 Vial Number : 69
 AcquisitionMeth: DRUGS
 Integrator : RTE



Ret. Time	Area	Area %	Ratio %
3.335	259208	12.26	26.93
4.066	631244	29.86	65.58
6.465	962523	45.52	100.00
8.392	261315	12.36	27.15

Area Percent / Library Search Report

Information from Data File:

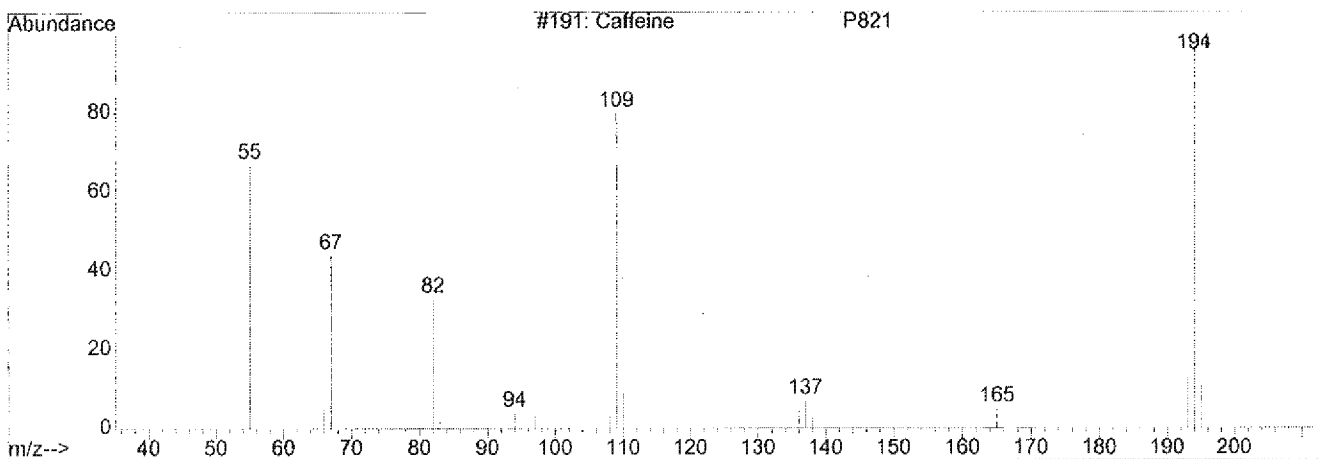
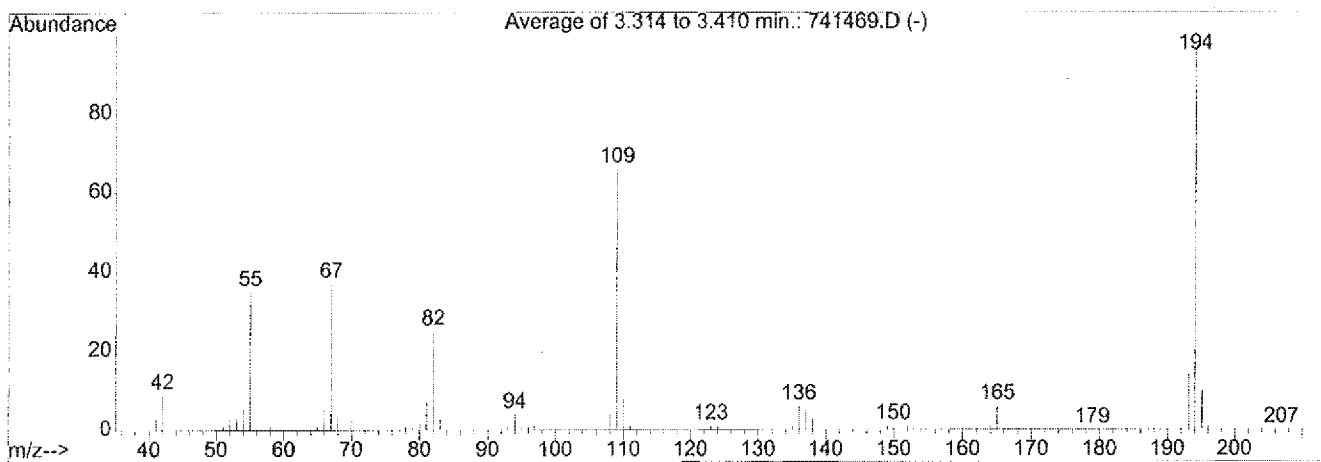
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741469.D
Operator        : ASD
Date Acquired   : 3 Sep 2010 00:06
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 69
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
1	3.34	C:\DATABASE\PMW_TOX2.L		
		Caffeine	000058-08-2	95
		Proxiphylline	000603-00-9	4
		Dimetacrine-M (ring)	006267-02-3	4



Area Percent / Library Search Report

Information from Data File:

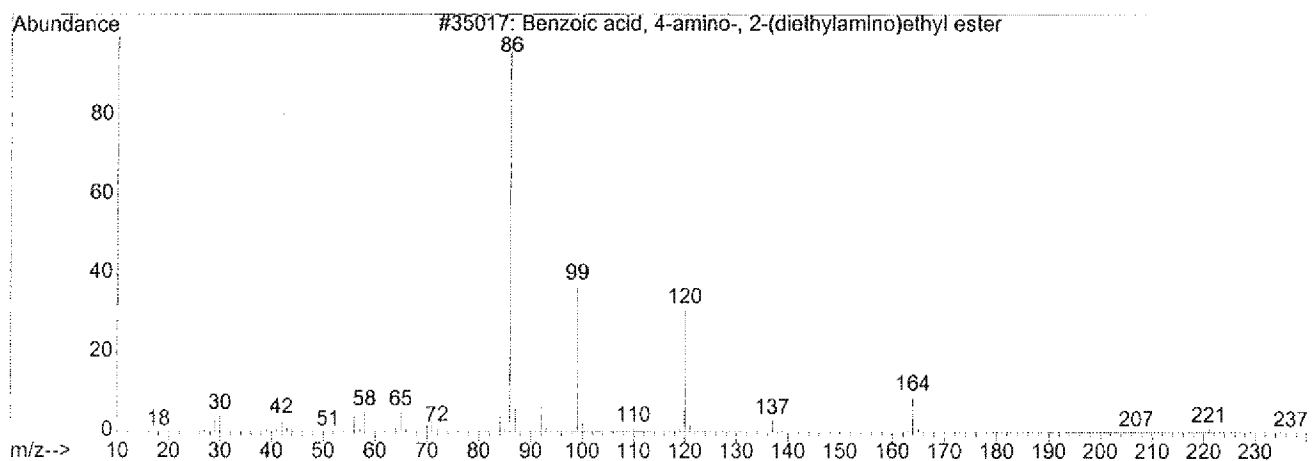
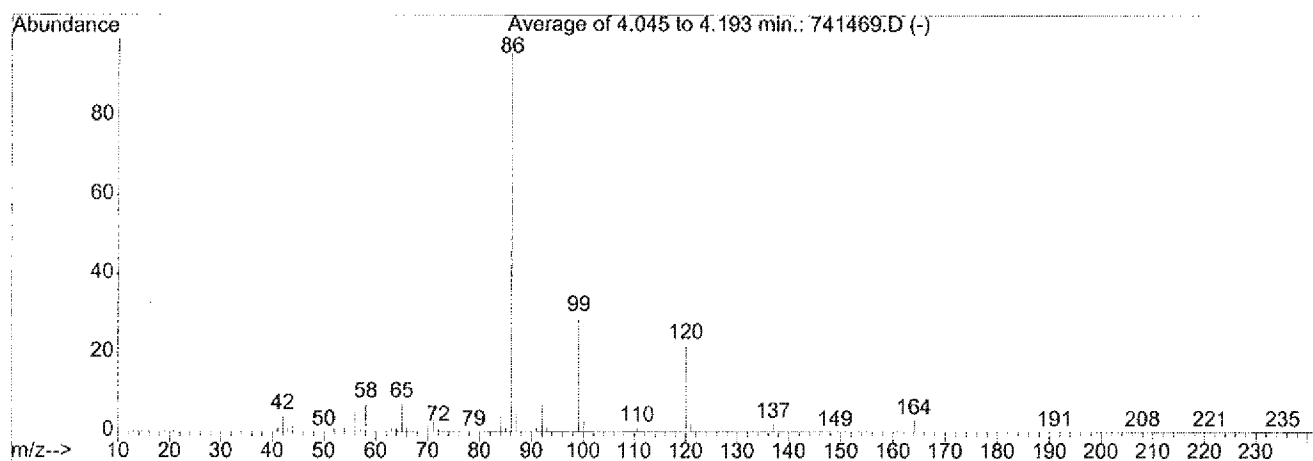
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741469.D
Operator        : ASD
Date Acquired   :  3 Sep 2010   00:06
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 69
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
2	4.07	C:\DATABASE\NIST98.L		
		Benzoic acid, 4-amino-, 2-(diethyla	000059-46-1	90
		Benzamide, 4-amino-N-[2-(diethylami	000051-06-9	83
		3-Aminobenzoic acid, 2-diethylamino	1000193-23-3	64



Area Percent / Library Search Report

Information from Data File:

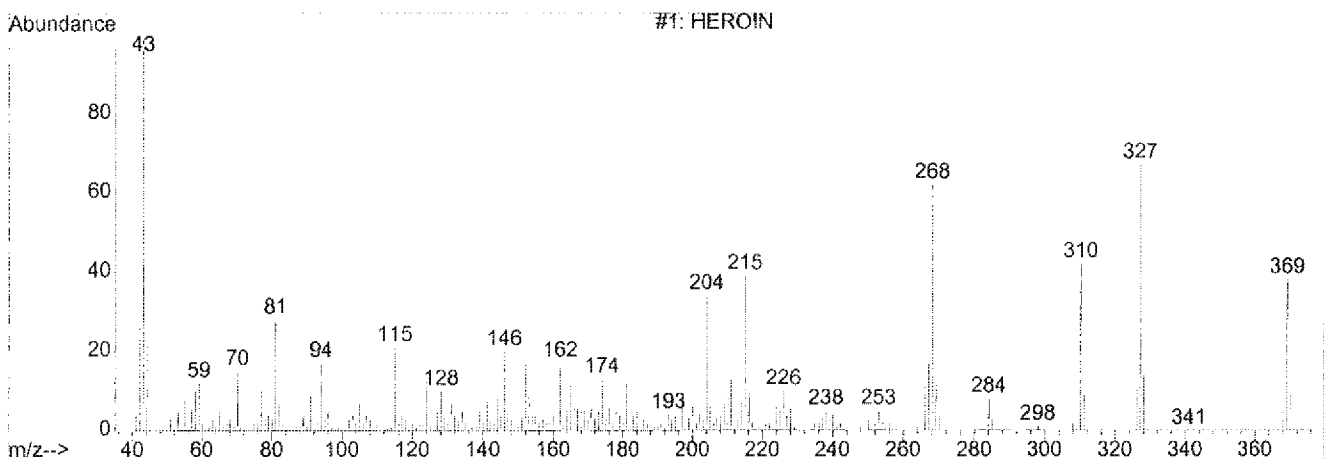
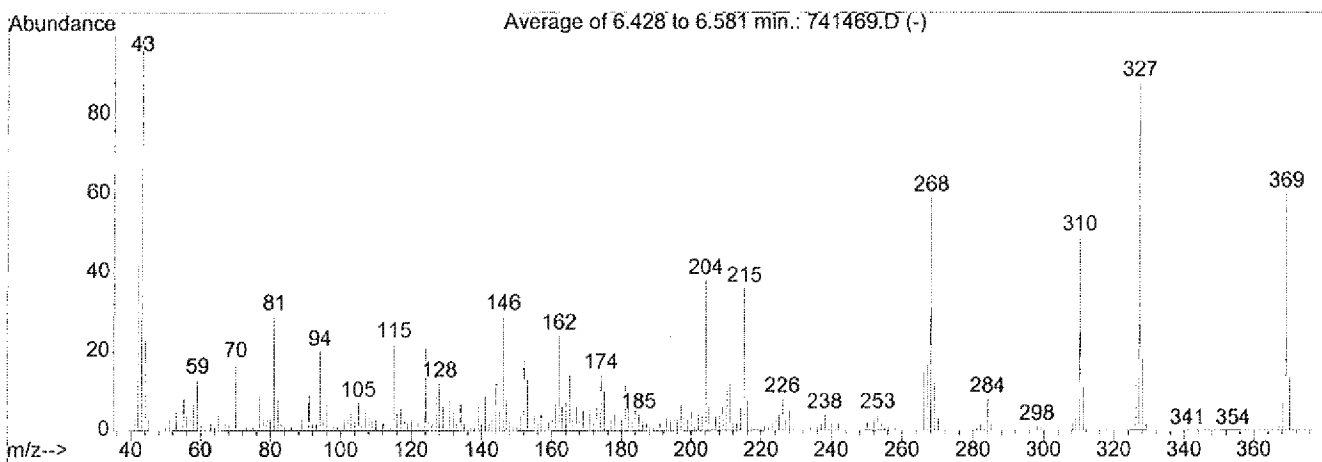
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741469.D
Operator        : ASD
Date Acquired   : 3 Sep 2010  00:06
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 69
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
3	6.47	C:\DATABASE\SLI.L HEROIN	000561-27-3	94



Area Percent / Library Search Report

Information from Data File:

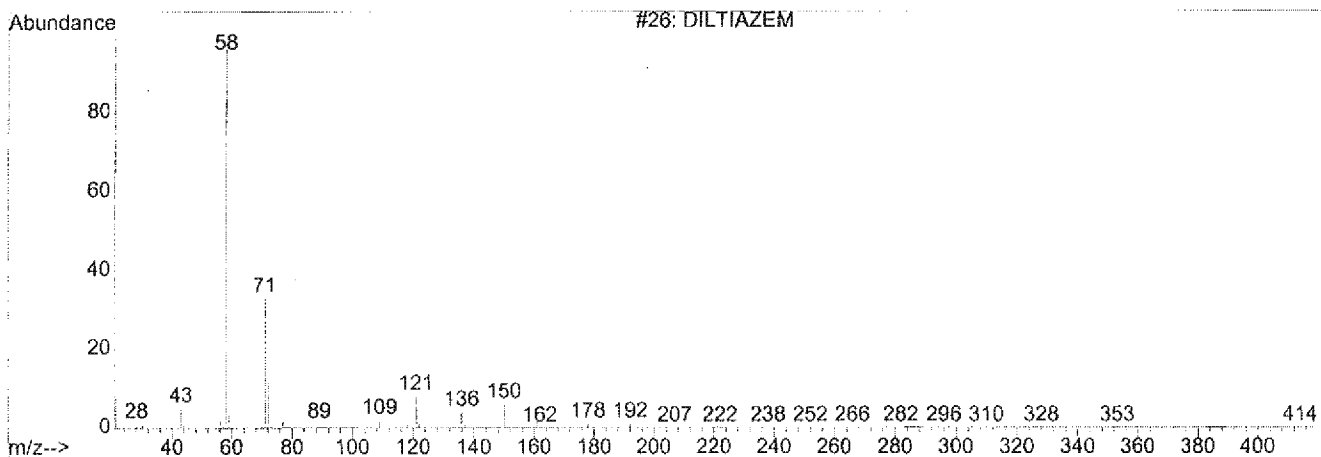
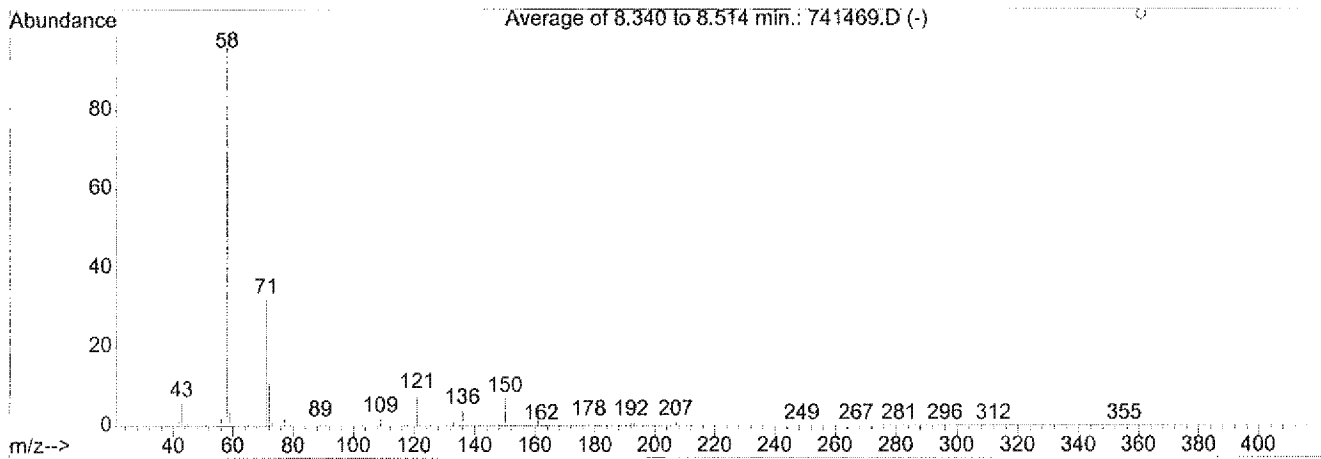
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741469.D
Operator        : ASD
Date Acquired   : 3 Sep 2010 00:06
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 69
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

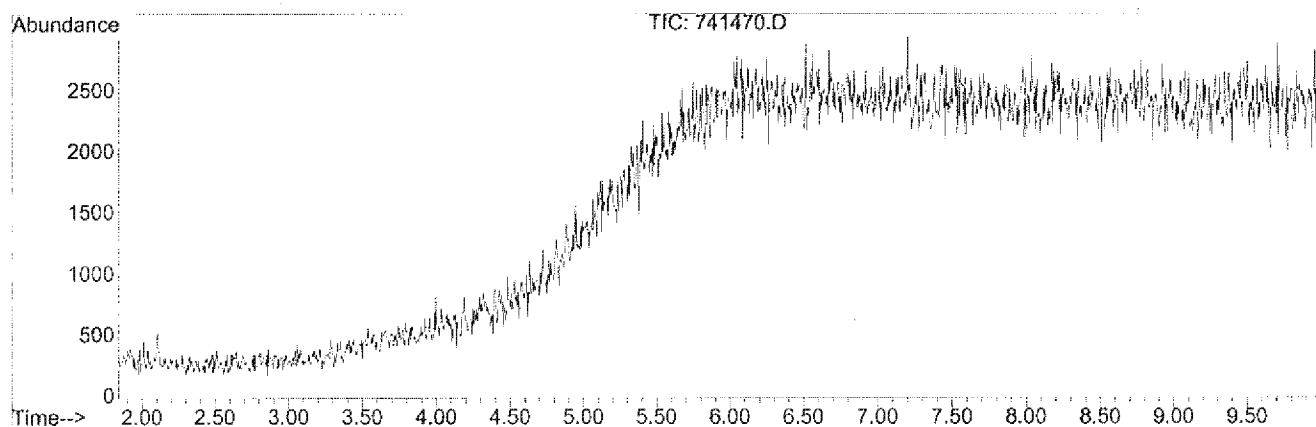
PK#	RT	Library/ID	CAS#	Qual
4	8.39	C:\DATABASE\SLI.L		
		DILTIAZEM	033286-22-5	91
		CITALOPRAM	059729-33-8	4
		CITALOPRAM	059729-33-8	4



Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741470.D
Operator : ASD
Date Acquired : 3 Sep 2010 00:18
Sample Name : BLANK
Submitted by : MGL
Vial Number : 2
AcquisitionMeth: DRUGS
Integrator : RTE



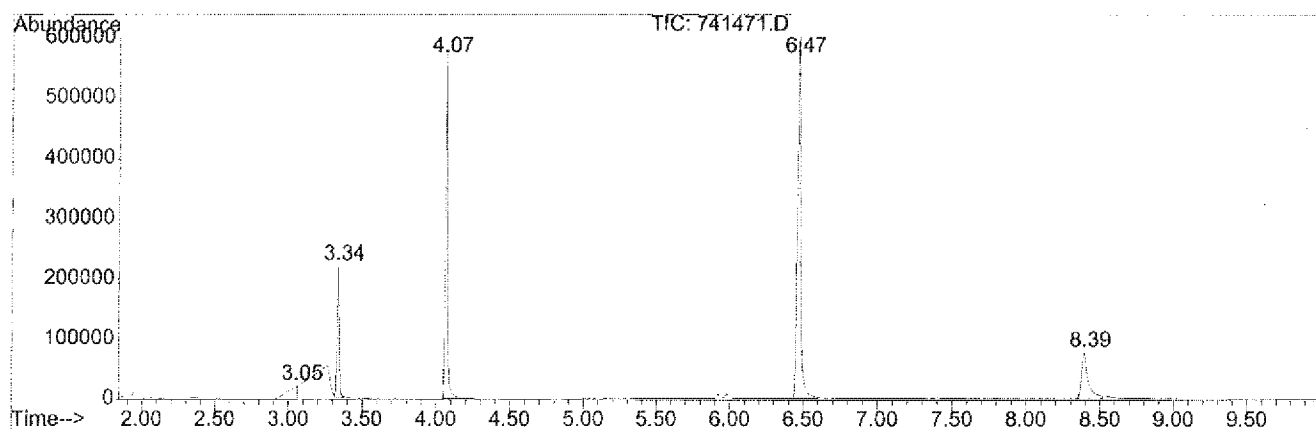
Ret. Time	Area	Area %	Ratio %
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NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741471.D
 Operator : ASD
 Date Acquired : 3 Sep 2010 00:31
 Sample Name : XXXXXXXXXX
 Submitted by : MGL
 Vial Number : 71
 AcquisitionMeth: DRUGS
 Integrator : RTE



Ret. Time	Area	Area %	Ratio %
3.055	102287	5.00	11.03
3.336	210430	10.28	22.69
4.066	566310	27.67	61.05
6.465	927615	45.33	100.00
8.393	239773	11.72	25.85

Area Percent / Library Search Report

Information from Data File:

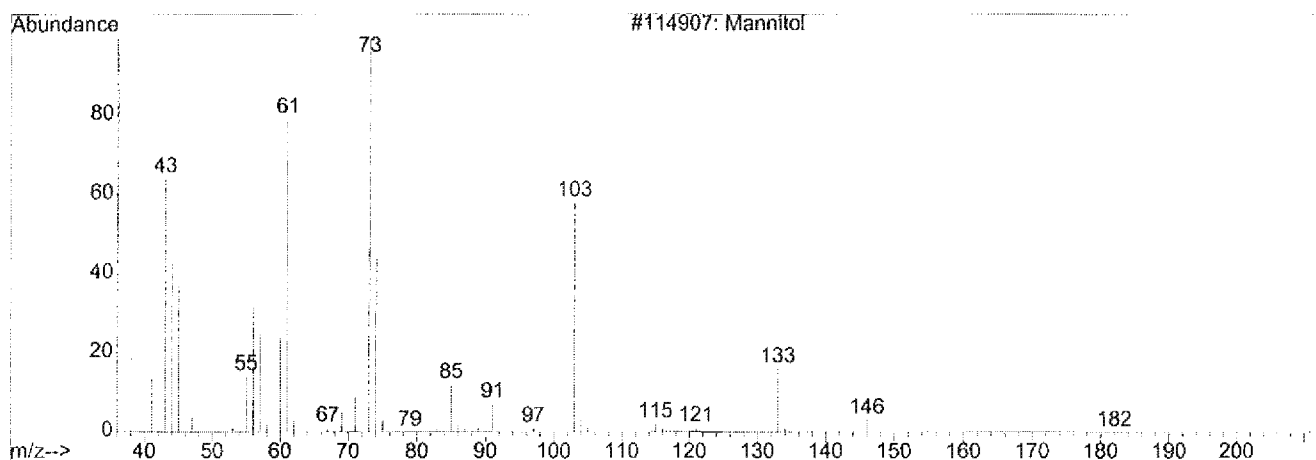
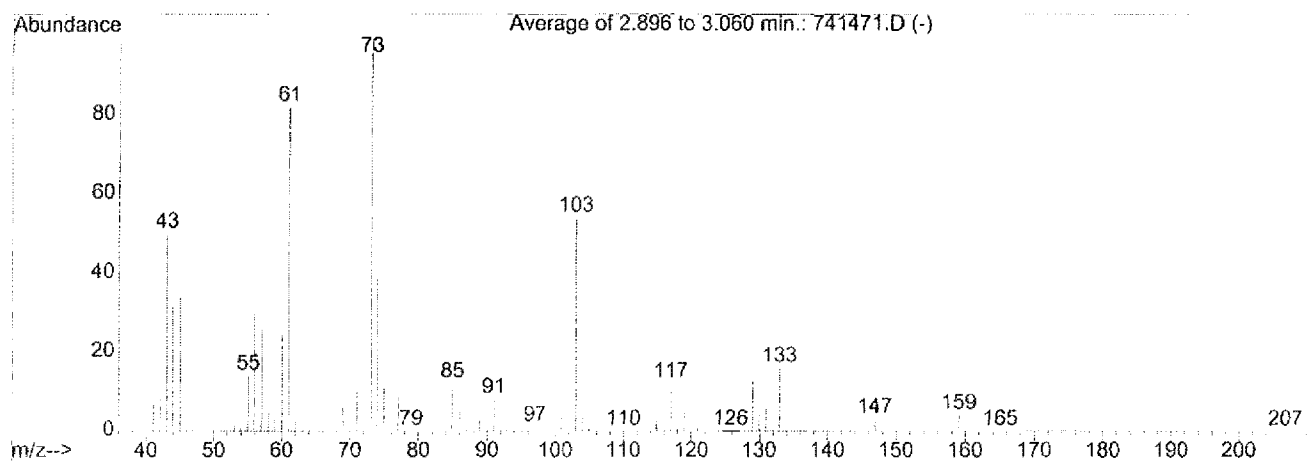
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741471.D
Operator        : ASD
Date Acquired   : 3 Sep 2010 00:31
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 71
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
1	3.05	C:\DATABASE\NIST98.L		
		Mannitol	000069-65-8	87
		Sorbitol	000050-70-4	83
		Mannitol	000069-65-8	72



Area Percent / Library Search Report

Information from Data File:

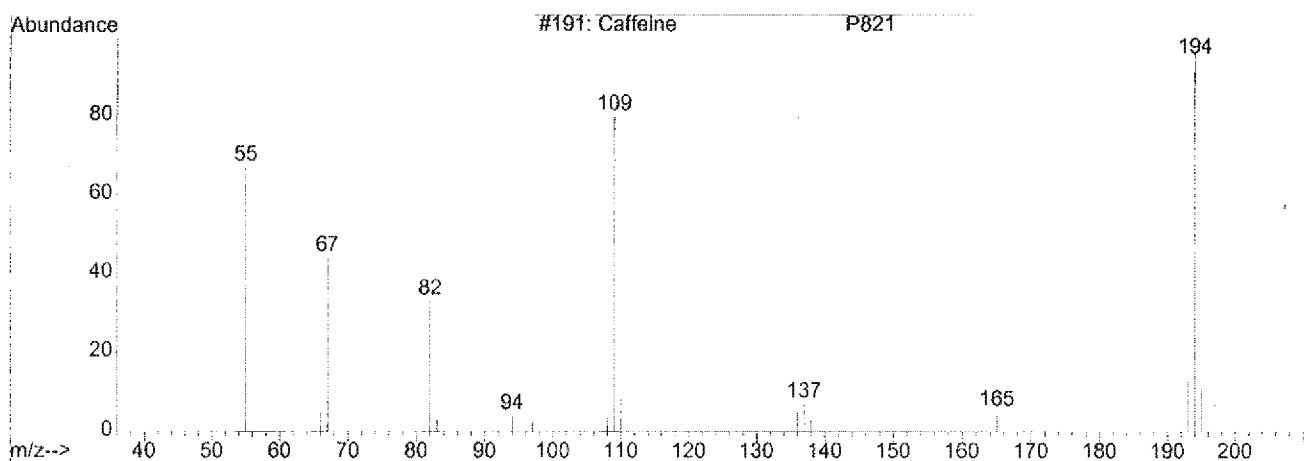
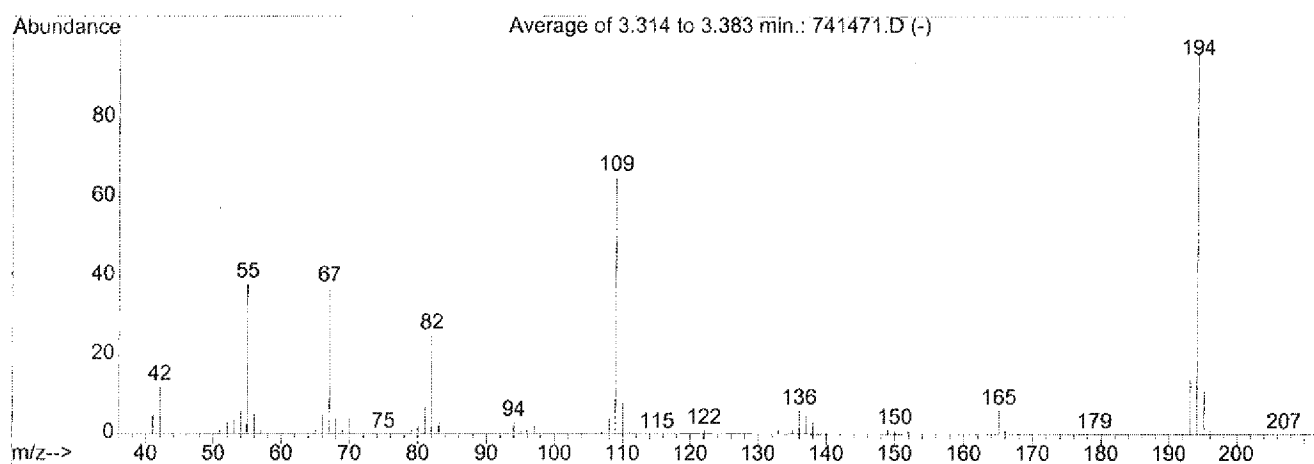
```

File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741471.D
Operator        : ASD
Date Acquired   :  3 Sep 2010   00:31
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 71
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
2	3.34	C:\DATABASE\PMW_TOX2.L		
		Caffeine	000058-08-2	96
		Endogenous biomolecule 2AC	000000-00-0	9
		Proxyphylline	000603-00-9	4



Area Percent / Library Search Report

Information from Data File:

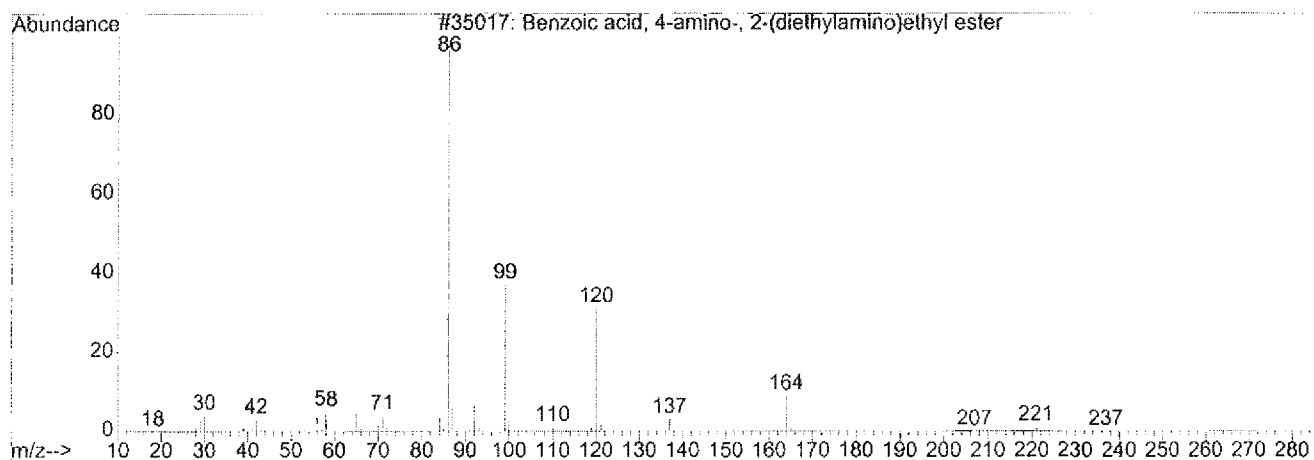
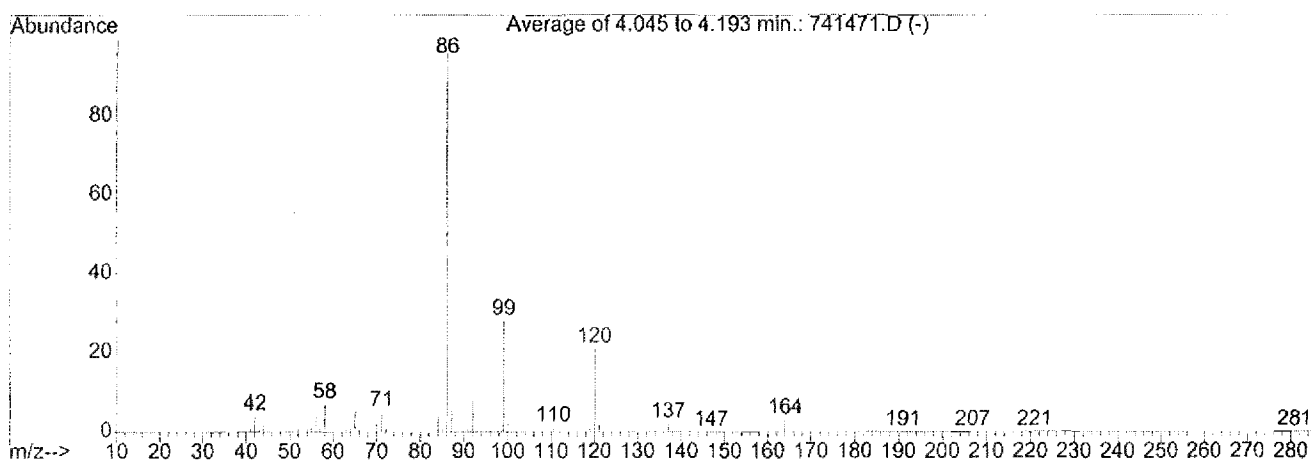
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741471.D
Operator        : ASD
Date Acquired   :  3 Sep 2010   00:31
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 71
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries:  C:\DATABASE\SLI.L             Minimum Quality: 90
                   C:\DATABASE\PMW_TOX2.L        Minimum Quality: 90
                   C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
3	4.07	C:\DATABASE\NIST98.L		
		Benzoic acid, 4-amino-, 2-(diethyla	000059-46-1	90
		Benzamide, 4-amino-N-[2-(diethylami	000051-06-9	83
		Benzamide, 4-amino-N-[2-(diethylami	000051-06-9	64



Area Percent / Library Search Report

Information from Data File:

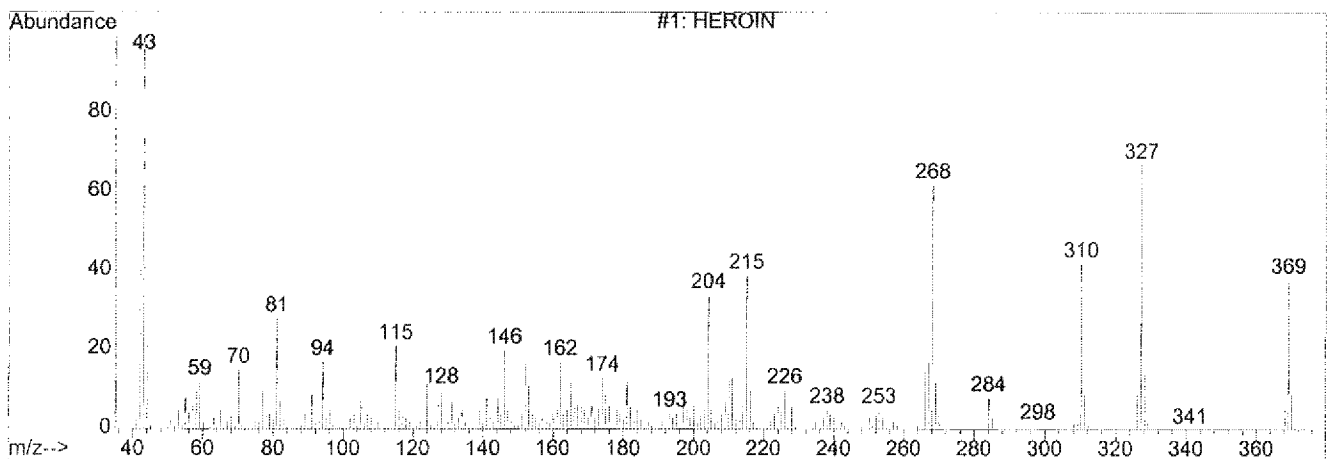
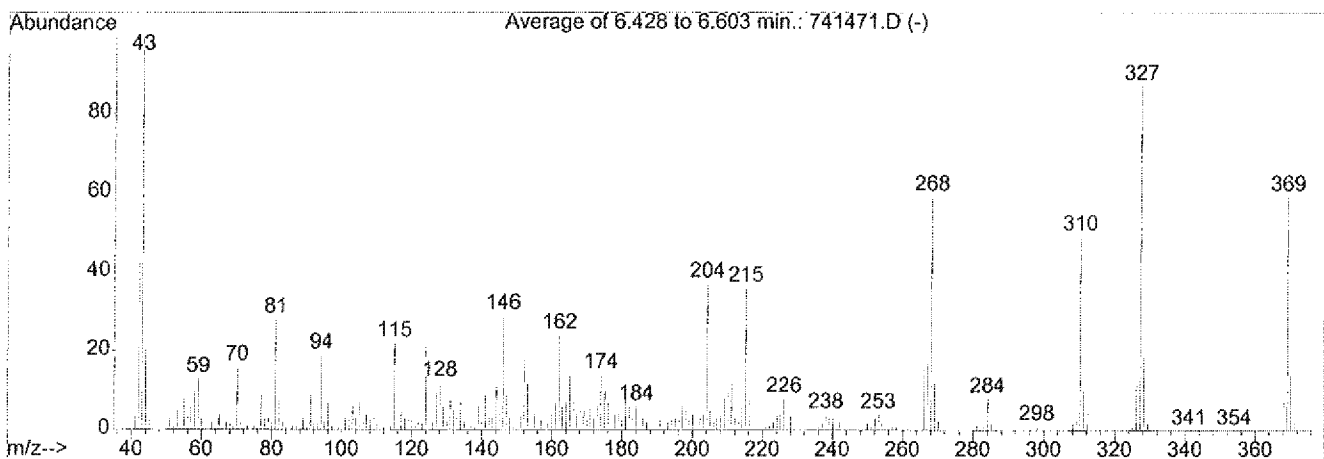
```

File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741471.D
Operator        : ASD
Date Acquired   : 3 Sep 2010 00:31
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 71
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
4	6.47	C:\DATABASE\SLI.L HEROIN	000561-27-3	99



Area Percent / Library Search Report

Information from Data File:

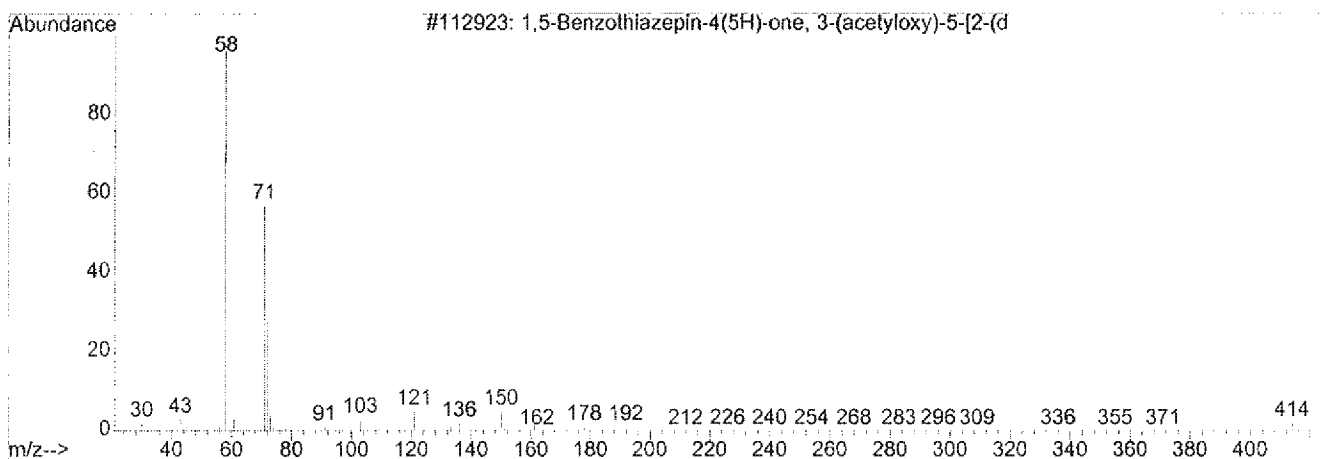
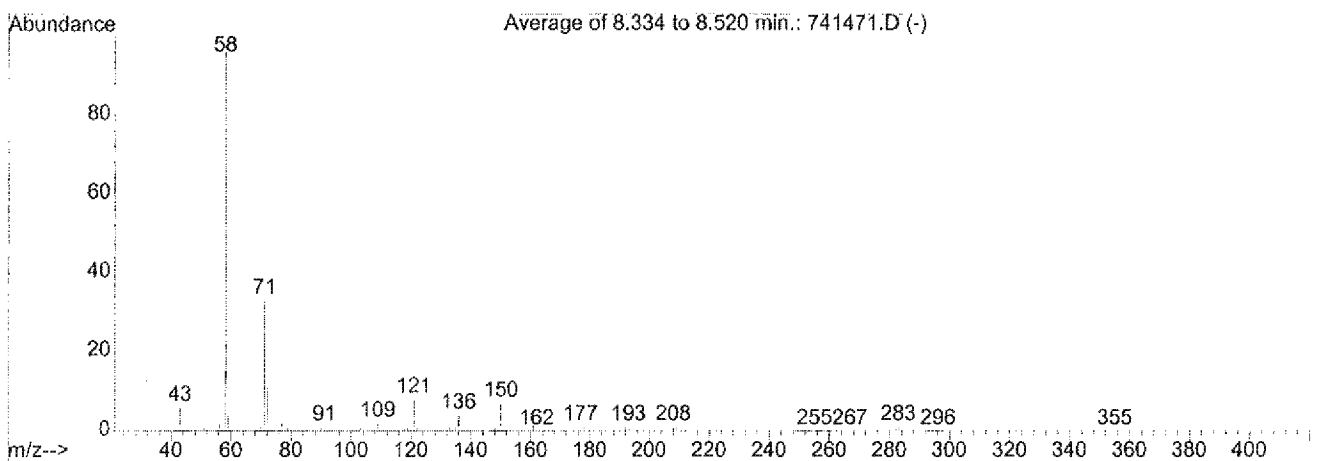
```

File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741471.D
Operator        : ASD
Date Acquired   :  3 Sep 2010   00:31
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 71
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries:  C:\DATABASE\SLI.L             Minimum Quality: 90
                   C:\DATABASE\PMW_TOX2.L        Minimum Quality: 90
                   C:\DATABASE\NIST98.L
  
```

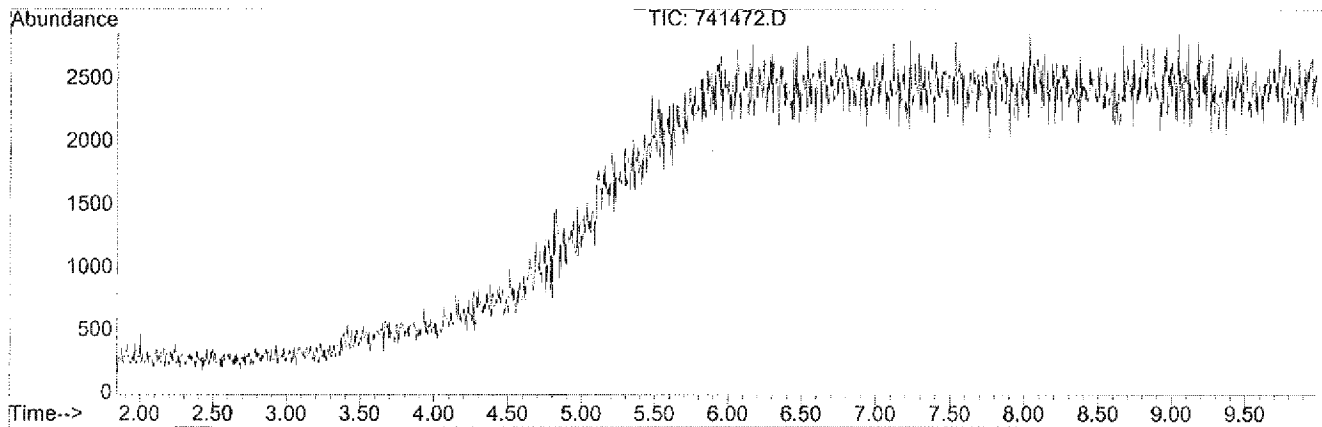
PK#	RT	Library/ID	CAS#	Qual
5	8.39	C:\DATABASE\NIST98.L		
		1,5-Benzothiazepin-4(5H)-one, 3-(ac	042399-41-7	53
		Propoxyphene	000469-62-5	47
		1,5-Benzothiazepin-4(5H)-one, 3-(ac	042399-41-7	47



Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741472.D
Operator : ASD
Date Acquired : 3 Sep 2010 00:43
Sample Name : BLANK
Submitted by : SLD
Vial Number : 2
AcquisitionMeth: DRUGS
Integrator : RTE



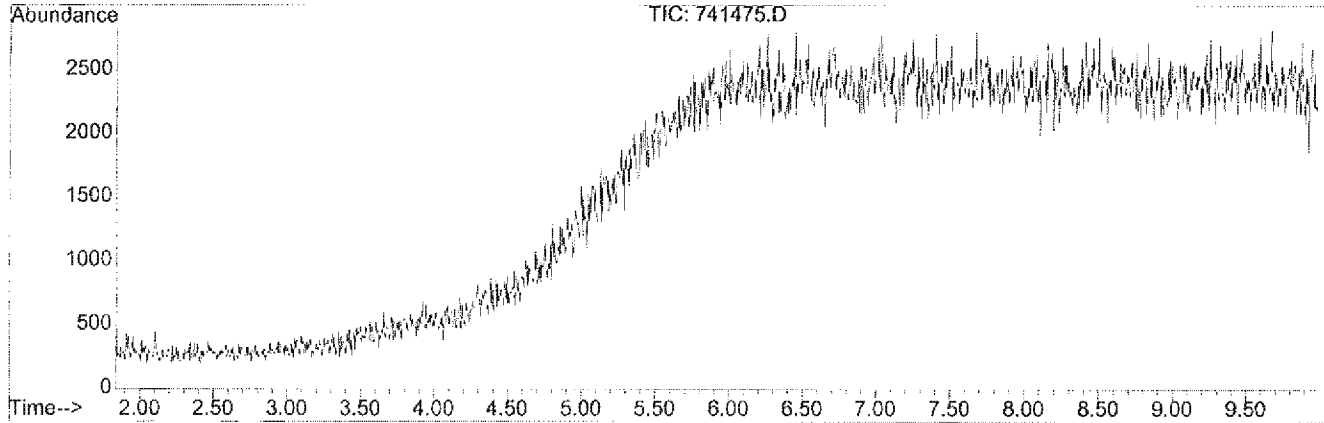
Ret. Time	Area	Area %	Ratio %
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NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741475.D
Operator : ASD
Date Acquired : 3 Sep 2010 1:21
Sample Name : BLANK
Submitted by :
Vial Number : 2
AcquisitionMeth: DRUGS
Integrator : RTE



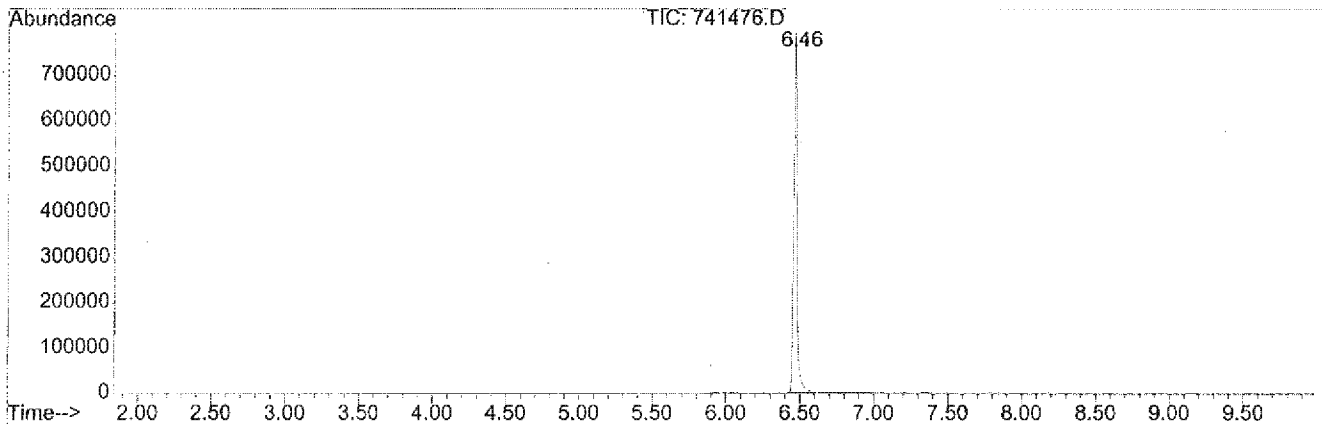
Ret. Time	Area	Area %	Ratio %
-----------	------	--------	---------

NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741476.D
 Operator : ASD
 Date Acquired : 3 Sep 2010 1:34
 Sample Name : HEROIN STD
 Submitted by :
 Vial Number : 76
 AcquisitionMeth: DRUGS
 Integrator : RTE



Ret. Time	Area	Area %	Ratio %
6.465	1200447	100.00	100.00

Area Percent / Library Search Report

Information from Data File:

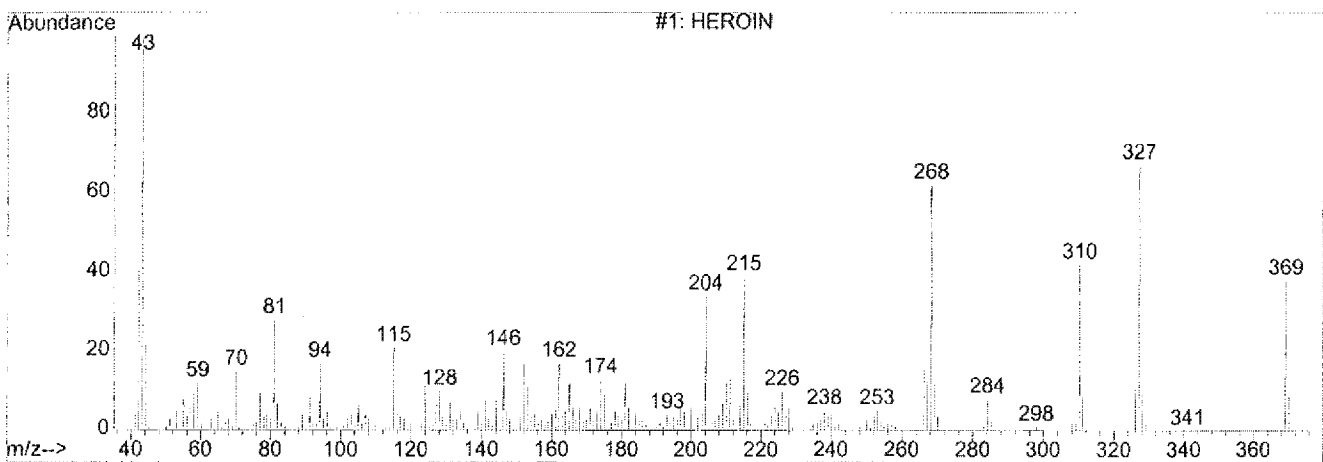
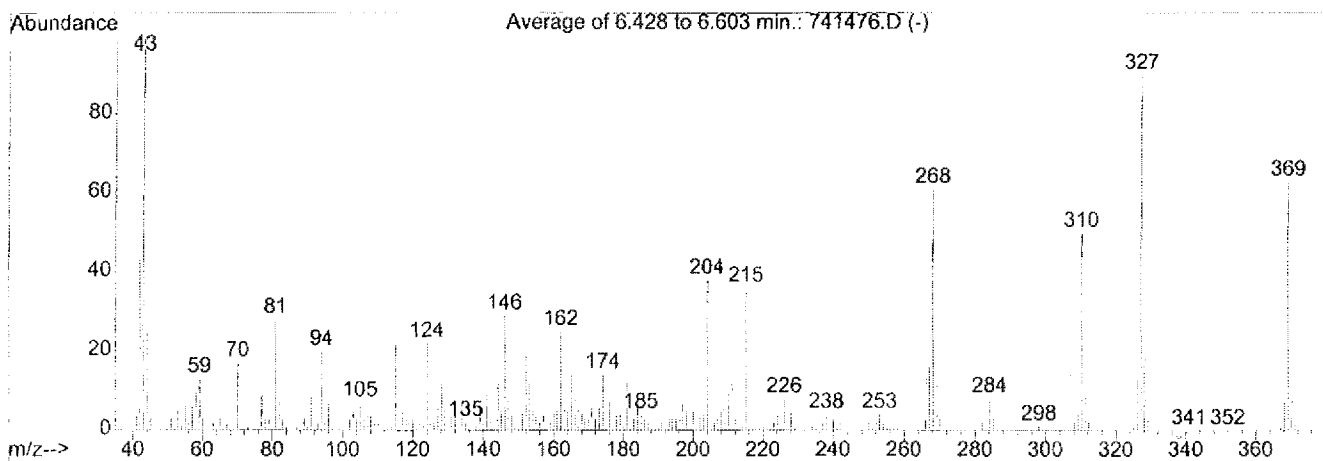
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File Name       : F:\Q3-2010\SYSTEM7\09_02_10\741476.D
Operator        : ASD
Date Acquired   : 3 Sep 2010   1:34
Sample Name     : HEROIN STD
Submitted by    :
Vial Number     : 76
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

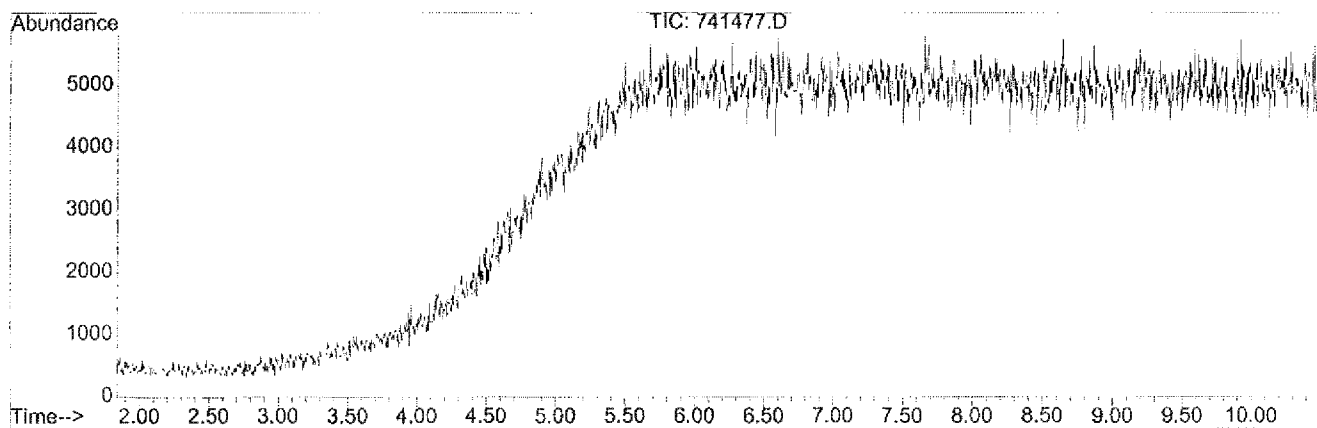
PK#	RT	Library/ID	CAS#	Qual
1	6.46	C:\DATABASE\SLI.L		
		HEROIN	000561-27-3	99
		JWH-073	208987-48-8	1



Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q3-2010\SYSTEM7\09_02_10\741477.D
Operator : ASD
Date Acquired : 3 Sep 2010 1:47
Sample Name : BLANK
Submitted by :
Vial Number : 2
AcquisitionMeth: CLONAZ
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
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NO INTEGRATED PEAKS

Last page.....no further data